

REMARKS

Reconsideration of the application is respectfully requested in view of the preceding amendments and for the following reasons.

Objection to the Specification

The specification has been objected. The Examiner has contended the structure associated with the terms "means for determining a duration of a time window" of claim 7, lines 4-6, and "means for determining a switching instant" of claim 7, lines 7 and 8, is not clear from the specification. In response, it should be noted that the structure corresponding to each of these elements is described in the specification. Figure 1 is the apparatus and Figures 2a, 2b and 3 provide the logic to the "means for determining". The means for determining a duration of a time window is also discussed in the specification at page 4, lines 20 and 29-31, at page 5, line 16 and page 6, line 6. For the reasons discussed above, withdrawal of the objection to the specification is hereby respectfully requested.

Rejection under 35 U.S.C. § 112, first paragraph, with respect to Claims 1-7

Claims 1-7 were rejected under 35 U.S.C. § 112, first paragraph. Applicants respectfully submit that this rejection should be withdrawn for the following reasons.

The Examiner has contended that the "second step of claim 1" ("determining a switching instant") has not been described in the specification. The Applicants would like to point out that the "switching instant tBIP" has been discussed and described in detail in the specification. For example, on page 4, lines 11-12, 20-23 and 29-31 the Applicants have discussed the "switching instant tBIP". Furthermore, the Examiner contends that the "means for determining a switching instant" of claim 7 is not enabling. The Applicants would like to point out that claim 16, of U.S. Patent No. 6,097,585 discloses "an arrangement determining a switching instant" and therefore "means" or "arrangement" for determining a switching instant are terms known in the art. Additionally, the Examiner has contended that this "is an apparatus claim and no apparatus is identified." The Applicants would like to state that claim 7 of the instant application is analogous to claim 16 of U.S. Patent No. 6,097,585, and that this latter claim is an acceptable apparatus claim. Furthermore, the Examiner contends that the "means for determining a duration of a time window" is also not enabling. The Applicants would like to point out that "means for determining a duration of a time window" has been discussed and described in detail in the specification. For example, on page 4, lines 20 and 29-31, page 5, line 16, page 6, line 6 the

Applicants have discussed the "means for determining a duration of a time window". Furthermore, times t3 and t4 define a time window (see page 4, line 20), width B of the time window is defined as shown in Figure 3 (see page 5, line 4) and Figure 2b shows the duration of the time window (see page 5, line 10).

For the reasons discussed above, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is hereby respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph, with respect to Claims 1-7

Claims 1-7 have been rejected under 35 U.S.C. § 112, second paragraph. Applicants respectfully submit that this rejection should be withdrawn for the following reasons.

Claims 2 and 4 have been amended. Claim 2 claims that the method according to claim 1, which further comprises the step of increasing the duration of the time window if the current is lower than the threshold value. Whereas, claim 4 claims the method according to claim 1, further comprising the step of increasing the duration of the time window until a maximum value for the duration is reached. Claim 3 further limits the invention of claim 1 by stating that the method of claim 1 further comprises the step of reducing the duration of the time window if the current is greater than the threshold value. Therefore, claims 2, 3 and 4 clearly limit the scope of claim 1 by adding additional steps that are not present in claim 1.

Claim 5 is dependent upon claim 1, and the steps of claim 5 are intended to be additional steps occurring after the steps of claim 1 as observed by the Examiner.

For the reasons discussed above, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is hereby respectfully requested.

Rejection under 35 U.S.C. § 103 (a) with respect to claims 1-7

Claims 1-7 have been rejected under 35 U.S.C. § 103(a). The Patent Office has contended that these claims are unpatentable over Heinzelmann et al. (U.S. Patent No. 6,097,585) ('585). Applicants respectfully submit that this rejection should be withdrawn for the following reasons.

The Examiner's observation that '585 discloses "the same invention" is not true. The invention of '585 and Applicants' invention are in the same area of technology but they are totally different inventions. For example, '585 first requires the determination of a switching instant when the movable element reaches a predetermined position within a timing window. Whereas, the applicants require the determination of "a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold

value". Similarly, '585 requires the controlling of "a voltage to an adaptable setpoint value in at least one of an open loop and a closed loop". Which is different than the Applicants' invention which requires a determination of "a switching instant at which the movable element has reached a particular position within the time window." Furthermore, Figure 2 of '585 and Figure 3 of the Applicants are both flow-charts but they are not similar as contended by the Examiner. For example, Fig. 2 of '585 at step 200 starts with a time meter t, and then at step 230 checks to see if the actual value II is equal to the setpoint value IS. Whereas, the Applicants' Fig. 3 in step 320 looks at if maximum value of the current IB is greater than the threshold value SW, and then depending upon the answer it either goes to the end 350 or goes to another loop via step 360. Therefore, from the teachings of '585 it would not be obvious to one of ordinary skill in the art to modify '585 to result in Applicants' invention even though "the relationship between voltage and current is a well known law of nature." Furthermore, there is no teaching in '585 to suggest the modification of '585 that would result in Applicants' claimed invention. In fact a modification of '585 might result in a voltage detection unit 165 of '585 as a part of the consumer 100 and/or the current detection unit 150 of '585 as a part of the current measuring means 120, which would make the Applicants' invention different than what has been claimed by the Applicants.

Claims 2-6 are dependent on Claim 1, and as such are patentable for the same reasons as claim 1.

For the reasons discussed above, withdrawal of the rejection under 35 U.S.C. § 103 (a), with respect to claims 1-7, is hereby respectfully requested.

Conclusion

It is believed that this application is now in condition for allowance and applicants respectfully request such favorable action.

Respectfully Submitted,

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